WHAT IS CLAIMED IS:

1. A method of making a three-dimensional object, comprising the steps of:

(a) forming a powder material layer of inorganic material;

(b) irradiating an optical beam on a predetermined portion of the powder material layer to form a first sintered layer and integrate the first sintered layer with a second sintered layer just below the first sintered layer;

(c) repeating the steps (a) and (b) to form a sintered block united with a plurality of the first and second sintered layers, the sides of the sintered block including a concave portion;

(d) removing an excess portion from a surface of the sintered block; and

(e) repeating the steps (c) and (d) with respect to the sintered block from which the excess portion is removed, in order to make a target shape of a three-dimensional object united with a plurality of the sintered blocks.

2. The method according to claim 1, the concave portion is formed on a lower part of the sintered block.

3. The method according to claim 1, an upper surface of the

concave portion is declined from the outside toward the inside.

4. The method according to claim 1, further comprising the step of uniting with a thin sheet covering the top surface of the sintered block.

5. The method according to claim 1, further comprising the step of treating the surface of the sintered block removed the excess portion to be unreactive with the powder material.

6. The method according to claim 5, further comprising, after the step of treating the surface, the step of placing non-adhesive powder around the surface of the sintered block.

7. The method according to claim 5, further comprising, after the step of treating the surface, the step of placing a mask on the top surface of the sintered block, the mask having an aperture that is approximately equal to the outline of the sintered block.

8. A method of making a three-dimensional object, comprising the steps of:

(a) forming a powder material layer of inorganic material;

(b) irradiating an optical beam along an outline of predetermined portion to be sintered of the powder material layer to form an outline-sintered portion;

(c) irradiating the optical beam on all of predetermined portions to be sintered of the powder material layer to form a first sintered layer and integrate the first sintered layer with a second sintered layer just below the first sintered layer, in which each of the predetermined portions is the predetermined portion;

(d) repeating the steps (a) and (c) to form a sintered block united with a plurality of the first and second sintered layers;

(e) removing an excess portion from a surface of the sintered block; and

(f) repeating the steps (a), (b), (c), (d) and (e) with respect to the sintered block removed the excess portion to make a target shape of a three-dimensional object united with a plurality of the sintered blocks.